

ABSTRACT

The invention relates to a method for automatically assigning an IP address when a new user is connected to a network, the new user autonomously assigning his/her IP address, particularly in a network in which no automatic or optional dynamic assignment of IP addresses is available by means of a server and in which the IP addresses are not exclusively limited to the range of 169.254.0.1 to 169.254.255.254. The new user monitors the network regarding at least one previously allocated valid IP address in a first phase (1) while automatically creating (i) an IP address that differs from the previously allocated IP address in a second phase (2), said address being only slightly modified, typically only the last byte thereof, the first three bytes being taken over from the previously allocated IP address that was found in the network. (ii) The availability of the newly created IP address is then verified by means of a request in the network, whereupon the new user assigns said IP address to him/herself if the newly created IP address is available, or the creation (i) or verification (ii) of a new IP address is repeated if said IP address is not available. The invention also relates to a method for automatically identifying a specific network when different networks communicate on the medium (e.g. in radio networks), and a method for transmitting data, e.g. network identifiers and keys, even if the network communicates by means of keys that are unknown to the new user. According to said method, a transmission program that reaches the network into which the new user is expected to log uses time encoding and/or linear encoding of data transmission blocks that can be received even without knowing the network key. Said transmission can take place in an encoded manner in order to prevent compromising of the network keys or other security-relevant data that is to be transmitted.